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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|--------------------------------|------------------------|
| 09/833,452 | 04/12/2001 | Randall Allen Vogel | AD6728 US NA | 3330 |
| 23906 7590 06/15/2007 E I DU PONT DE NEMOURS AND COMPANY LEGAL PATENT RECORDS CENTER BARLEY MILL PLAZA 25/1128 4417 LANCASTER PIKE WILMINGTON, DE 19805 | | | EXAMINER JACKSON, MONIQUE R | |
| | | | ART UNIT 1773 | PAPER NUMBER |
| | | | MAIL DATE 06/15/2007 | DELIVERY MODE PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/833,452 | VOGEL ET AL. | |
| | Examiner | Art Unit | |
| | Monique R. Jackson | 1773 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) 4,7,9,11,12,14,16-18,20,21,45,47 and 49 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,6,43,54,55,57-63,65-72,83 and 84 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Continuation of Disposition of Claims: Claims pending in the application are 1,3,4,6,7,9,11,12,14,16-18,20,21,43,45,47,49,54,55,57-63,65-72,83 and 84.

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DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/3/07 has been entered.

2. Claims 1, 3, 4, 6, 7, 9, 11, 12, 14, 16-18, 20, 21, 43, 45, 47, 49, 54, 55, 57-63, 65-72, 83 and 84 are pending in the application. Claims 4, 7, 9, 11, 12, 14, 16-18, 20, 21, 45, 47 and 49 have been withdrawn from further consideration. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Specification

3. The disclosure is objected to because of the following informalities: the sections of the specification appear to contradict one another. At page 11, lines 15-18, a "Class A" surface is noted to typically have a DOI value of at least 60 however at page 12, a "Class A" surface is defined as a surface having a DOI of 80, gloss of 90 and haze of 10.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. Claims 60-63 and 65 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the

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claimed invention. Claims 60-63 and 65 recite that the first co-extruded polymeric layer has a thickness of about 12 to about 40 mils, however, the original disclosure at the time of filing fails to provide support for the claimed thickness range of this layer. At page 17 of the specification, the Applicant recites that “multilayer sheets preferably are about 8 to about 60, alternatively about 12 to about 40 mils thick” at lines 14-15. The original disclosure at the time of filing fails to provide any thickness range for the first co-extruded layer, however, it is noted that the original disclosure does provide examples wherein the first co-extruded layer has a thickness of 2.5 mils, 6 mils, or 9 mils, all values well below the claimed endpoint of about 12 mils for this layer. Hence, the claimed range of “about 12 to about 40 mils” for the “first co-extruded polymeric layer” is not supported by the original disclosure at the time of filing.

5. Claims 69-70 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 69 and 70 have been amended to broaden the DOI range from “at least about 80” to “at least about 60” as added to amended claim 1 on 10/18/06, however, upon further review of the original disclosure, it is apparent from the original disclosure that the instant invention provides “improved” DOI and that the invention is directed to articles that exhibit a DOI of at least 80, not 60, as is evident from page 21 of the instant disclosure. Though the Applicant broadly describes satisfactory finishes as having a DOI value of at least 60 on page 11, it is apparent from the remainder of the disclosure that the invention is directed towards an “improved” DOI of at least 80.

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6. Claim 65 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 65 recites that the first co-extruded layer has a thickness of about 12 to about 40 mils however it is unclear how the first co-extruded layer could have the same thickness as the total film thickness if the film is a multilayer film.

Claim Rejections - 35 USC § 102

7. Claims 69-72 are rejected under 35 U.S.C. 102(e) as being anticipated by Smith et al (USPN 6,319,438) for the reasons recited in the prior office action dated 5/18/04 and restated below, wherein the Examiner notes that the declaration filed on 4/3/07 does not provide a showing of conception or reduction to practice of the claimed invention including the DOI values prior to the invention of Smith et al.

8. As previously discussed, Smith et al teach an extruded automotive trim and a method of making the trim wherein a multilayer sheet is coextruded to include at least one color pigmented or metallizing particle layer and a top clear coat layer wherein the multilayer sheet may further include tie layer(s) which may be clear or include color pigment and/or metallizing particles and the clear coat layer may include multiple layers; wherein as taught in an example, the layers may be formed of ionomeric resins as instantly claimed and wherein the sheet is laminated to a substrate which may be provided with coloring (Abstract; Figures; Col. 7-10; Col. 14, line 47-Col. 15, line 34; Col. 16, line 49-Col. 18, line 16.) Smith et al also teach that the sheet is thermoformable, that the substrate may be various polymers, that each of the trim products has a finished surface with a distinctness of image (DOI) of at least about 60 units, where 100 is the maximum DOI reading, and a gloss of at least about 60-65 at an angle of 20°; wherein Smith et

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al teach that the gloss and DOI of the final trim part can be increased or improved by polishing or plating working mold surfaces since the final product may come directly from the mold apparatus (Col. 11-12; Col. 17; Col. 19, lines 45-65; Col. 8, lines 55-67.) Smith et al further teach thickness ranges that read upon the claimed film and first coextruded layer ranges (Col. 9; Col. 17, lines 22-Col. 18, line 16.)

Claim Rejections - 35 USC § 103

9. Claims 1, 3, 6, 43, 54, 55, 57-63, 65-68, 83, and 84 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 04345828 (JP'828.) JP'828 teaches a multilayer, co-extruded ionomer film comprising at least three layers including a first outer layer 1 selected from EVA, VLDPE, or mixture thereof; a core or a layer 2 of ionomer or a blend thereof with EVA, EMAA or EAA; and a second outer layer 3 selected from a group of EMAA, EAA and ionomers; wherein before stretching the film has a total thickness of about 400 to about 820 microns, with the second outer layer having a thickness of about 75 to about 155 microns (reads upon claimed about 8mils to about 60 mils; Abstract; Figure 2; paragraph 0023.) The core or internal layer is preferably about 200 to about 410 microns (Paragraph 0024) and the first outside layer is about 125 to about 255 microns (Paragraph 0025.) JP'828 provides an example, Structure No. 1, which includes a 90 micron sodium ionomer outer layer c, a 235 micron sodium ionomer core layer b, and a 145 micron VLDPE/EVA blend outer layer a (*also reads upon substrate of Claim 43*) for a total film thickness of 470 microns or about 18.5 mils or about 12.8 mils for the two ionomer layers only (Table 1.)

JP'828 does not teach that the film or one or more layers comprise an additive as instantly claimed however one having ordinary skill in the art at the time of the invention would

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have been motivated to utilize any of the claimed conventional additives, particularly a pigment to provide a desired color or property based on the desired end use of the final product. Further one having ordinary skill in the art at the time of the invention would have been motivated to determine the optimum thickness for each layer to provides the desired multilayer film for a particular end use.

10. Claims 1, 3, 6, 43, 54, 55, 57-63, 66-68, 83, and 84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Flieger (USPN 5,789,048) generally for the reasons recited in a prior office action and restated below, wherein the Examiner notes that though Flieger teach that typically a film thickness of 70-125 microns should be adequate for 25 kg bags of polymers and elastomers, the thickness of the film depends upon the size and weight of the package (Col. 2, lines 61-65.) Hence, one having ordinary skill in the art at the time of the invention would have been motivated to utilize thicker films for packages heavier than 25 kg and further to utilize routine experimentation to determine the optimum layer thickness for each layer of the film.

Flieger teaches a film made from a random ionomer copolymer comprising 55-90% by weight ethylene and 10-45% by weight of an unsaturated monocarboxylic acid having 3-8 carbon atoms, preferably acrylic acid or methacrylic acid, the copolymer being neutralized from 0-40% with a metal ion such as lithium, sodium, magnesium, or zinc (Abstract; Col. 2, lines 41-53.) Flieger teaches that the film may be formed by any procedure known in the art including flat film extrusion and blown film extrusion and typically has a thickness of 70-125 microns, wherein the film may be formed of several coextruded layers, each layer providing different properties (Col. 2, lines 58-67.) Flieger specifically teaches that the film may be formed by a black inner layer for ultraviolet light protection, a white middle layer for appearance, and a clear

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outer layer for printability and tackiness wherein Fleiger includes an example comprising a multilayer film formed from an ionomer copolymer comprising 80% ethylene and 20% methacrylic acid neutralized 35% with sodium ions, coextruded to form a 120 micron bag comprising a black pigmented inner layer 40 microns thick, a white pigmented middle layer 40 microns thick and a transparent outer layer 20 microns thick (Col. 3, lines 1-5; Ex. 2.) With regards to the flow properties and optical properties as instantly claimed, considering the multilayer film taught by Fleiger is produced by coextrusion to form a unitary film, the Examiner takes the position that “the flow properties” of the layers are “matched” as instantly claimed.

Response to Arguments

11. Applicant's declaration and arguments filed 4/3/07 have been fully considered but they are not persuasive and/or moot in view of the new grounds of rejection. First, the Examiner notes that the declaration under 37 CFR 1.131 was not submitted by all of the inventors of the subject matter claimed and that only Lori Pike signed the declaration yet Lori Pike was not one of the original inventors listed at the time of filing. The Examiner notes that though a declaration can be signed by less than all name inventors, it must be shown that less than all of the named inventors of the application invented the subject matter of the claim(s) under rejection (See MPEP 715.04 [R-5].) In terms of Smith et al, the Examiner notes that even if the declaration was proper, it fails to provide a showing of conception or reduction to practice of the claimed invention including the DOI values prior to the invention of Smith et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monique R. Jackson whose telephone number is 571-272-1508. The examiner can normally be reached on Mondays-Thursdays, 8:00AM-4:30PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on 571-272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Monique R. Jackson
Primary Examiner
Technology Center 1700
June 10, 2007